Remarks

This is a full response to the outstanding non-final Office action mailed July 21, 2005. Applicants have amended the claims herein; no new matter has been included by the current amendments.

Rejections under 35 U.CS.C. §112

Claims 1-7 were rejected because the term "enhancement reaction" was asserted to be vague and indefinite. Applicants assert that a review of the specification (e.g. at pp. 28-29 and throughout) provides a clear statement of the enhancement reaction.

Nevertheless, to advance prosecution of the claims, and without any prejudice to later prosecution, Applicants have amended the claims to recite applying a "source of metal ions". Basis for this amendment may be found at the top of page 29.

Claim 7 was rejected because it was not clear to the Examiner "how the term 'plurality of targets' further limited the parent claim." The Examiner stated "The parent claim recites the phrase 'detecting a target' (line 1), which indicates that only one target is detected." Applicants assert in reply that this statement is erroneous. It is well established caselaw that "a" does not mean "only one", but rather means "one or more". As such, claim 7 does further limit the parent claim, by requiring a "plurality of targets" to be detected.

Claim 11 was rejected because the term "integrated storage means" was asserted to be vague and indefinite. The Examiner stated it was "unclear whether the term refers to an electronic storage element, a physical storage element, a chemical storage element, or another type of storage element." Applicants assert that a review of the specification (e.g. at p. 15(middle) and throughout) provides a clear statement of the integrated storage means. Nevertheless, to advance prosecution of the claims, and without any prejudice to later prosecution, Applicants have amended the claims to recite "integrated circuitry for storage of data". Basis for this amendment may be found at page 15, line 14.

Rejections under 35 U.CS.C. §102

Claims 8-11 and 13-14 were rejected as allegedly being anticipated by Eggers et al. (US 5,670,322). Applicants have amended claim 8 to include "a pad of resistive material disposed between the first electrode and the second electrode". Basis for this amendment may be found in original claim 9 as well as throughout the specification (e.g. p. 18 line 32 to p. 21 line 9). Claim 9 has been amended to recite "the pad of resistive material comprises a plurality of segments with fissures between the segments". Basis for this amendment may be found at Figure 2 and throughout the specification (e.g. p. 12 line 9 to p. 14 line 16).

With regard to "pad of resistive material", the Office Action assumes that element 22 shown in Eggers et al. is a "pad or (sic) resistive material". However, this interpretation is incorrect. The element 22 is an insulating material (see Eggers et al., col.4, line 38), not a resistive material. The element 22 of Eggers et al. therefore corresponds to the substrate of the present specification, not the pad of resistive material.

It is axiomatic that "[a]nticipation requires the disclosure in a single prior art reference of each element of the claim under consideration." W. L. Gore & Associates, Inc. v. Garlock, Inc., 721 F.2d 1540, 1554, 220 USPQ 303, 313 (Fed. Cir. 1983). Every claimed feature of the claimed invention must be represented in the applied reference to constitute a proper rejection under 35 U.S.C. § 102(b). Eggers et al. fails to show the "pad of resistive material disposed between the first electrode and the second electrode" as recited in the present claim. Therefore, the rejection of the claims as anticipated by Eggers et al. should be withdrawn.

Rejections under 35 U.CS.C. §103

Claims 1-7 were rejected as unpatentable over the primary reference, Park et al. (Science, 2000), in light of the Fluke (Fluke Model 187 & 189 True RMS Multimeter Users Manual, 2000) and Eggers et al. references.

Claims 12 and 15 were rejected as unpatentable over the primary reference, Eggers et al. (Science, 2000), in light of the Mallet et al. (US 6,660,533) and Sandstrom (US 6,545,758) references, respectively.

As has been acknowledged by the Court of Appeals for the Federal Circuit, the U.S.

Patent and Trademark Office ("USPTO") has the burden under section 103 to establish a *prima facie* case of obviousness by showing some objective teaching in the prior art or generally available knowledge of one of ordinary skill in the art that would lead that individual to the claimed invention. *See In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). The Manual of Patent Examining Procedure (MPEP) section 2143 discusses the requirements of a *prima facie* case for obviousness. That section provides as follows:

To establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teaching. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and reasonable expectation of success must be found in the prior art, and not based on applicant's disclosure.

(Emphasis added.) In the present case, even if the teachings of the references were properly combinable, such combination would not result in Applicant's claimed invention. As already discussed above, the claims recite a "pad of resistive material disposed between the first electrode and the second electrode." This element is not shown or suggested in the cited art. Therefore, the rejection of the claims as unpatentable under section 103 should be withdrawn.

If any further issues arise in this case that may be resolved via a telephone call, the person responsible for this case is invited to call the applicant's attorney at the phone number given below.

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